

**GE MOBILE RADIO**  
**MASTR<sup>®</sup> Imperial**  
MOBILE CONTROL UNIT MODELS 4EC59A128-131



**SPECIFICATIONS \***

MODEL NUMBERS	4EC59A128-131
USED WITH	MASTR Imperial Mobile Combinations with Search-Lock Monitor
CONTROLS	VOLUME Control OFF-ON-STBY Switch SQUELCH Control F1-F2 Selector Switch Dimmer Control for Pilot Lights
INDICATORS	On light: green Transmit light: red

\*These specifications are intended primarily for the use of the serviceman. Refer to the appropriate Specification Sheet for the complete specifications.

**TABLE OF CONTENTS**

SPECIFICATIONS .....	Cover
DESCRIPTION .....	1
CIRCUIT ANALYSIS .....	1
Controls .....	1
OFF-ON-STBY Switch .....	1
Frequency Selector Switch .....	1
SEARCH-OFF Switch .....	1
Dimmer Control .....	1
Channel-Guard-Off Switch .....	1
Vehicle Ignition Switch Connections .....	1
MAINTENANCE .....	2
Disassembly .....	2
Pilot Light Replacement .....	2
Reinstallation .....	2
OUTLINE DIAGRAM .....	4
CONTROL UNIT SCHEMATIC & INTERCONNECTION DIAGRAM .....	5
PARTS LIST .....	6
Control Unit Models 4EC59A129 131	
Power Cables 19C303601G1 & G2	
Trunk-Mount Control Cables 19C303626G3 & G4	
Vehicle System Cables 19A121454G1 & G2	
Interconnection Harness 19A122458G1	
Microphone Model 4EM25A10	
Handset Model 4EM26A10	
Fuse Assembly 19B216021G4 & Fuse 1R11P4	
Five-Watt Speaker 4EZ20A12	
PRODUCTION CHANGES .....	6
ILLUSTRATIONS	
Figure 1 - 12-VDC Connections for Ignition Switch Standby .....	2
Figure 2 - Disassembly of Control Cable Plug .....	3

**WARNING**

No one should be permitted to handle any portion of the equipment that is supplied with voltage of RF power; or to connect any external apparatus to the units while the units are supplied with power. KEEP AWAY FROM LIVE CIRCUITS.

## DESCRIPTION

MASTR Imperial Controls Units Models 4EC59A128-131 are used with MASTR mobile combinations that are equipped with the Search-Lock Monitor (SLM) option. They are compact, highly functional control units designed for either Trunk-Mount or Front-Mount mobile combinations.

In Trunk-Mount installations, a plate is installed on the back of the Control Unit to hold the connectors. A mounting bracket is provided for mounting the Control Unit within convenient reach of the operator. In Front-Mount installations, the Control Unit is attached to the front of the MASTR Two-Way Radio.

Cable connections are secured to the Control Unit by means of captive locking screws.

## CIRCUIT ANALYSIS

### CONTROLS

In addition to VOLUME and SQUELCH controls, the control units are provided with the controls described in the following paragraphs.

#### OFF-ON-STBY Switch (S701)

The OFF-ON-STBY (standby) switch determines whether or not the transmitter and receiver are operative. With the switch in the OFF position, all power is removed from the Two-Way Radio. Turning the switch to STBY applies power to the receiver only, and the green pilot light does not light.

Turning the switch to the ON position enables the push-to-talk (PTT) circuit, lights the green pilot light, and applies +12 Volts to the receiver and power regulator.

Pushing the PTT button on the microphone lights the red pilot light, energizes the antenna changeover relay, and applies a keyed voltage to the transmitter and power regulator. The keyed voltage also mutes the receiver audio stages.

#### F1-F2 Frequency Selector Switch (S704)

The frequency selector switch selects the desired channel (F1 or F2) for both transmitting and receiving. However, frequency selection is affected by the position of SEARCH-OFF switch (S710).

#### SEARCH-OFF Switch (S710)

With the SEARCH-OFF switch in the OFF position, +10 Volts is applied through the frequency selector switch to the selected receiver oscillator, over-riding the SLM. The frequency selector switch also connects the transmitter oscillator to ground, so that the radio will operate on the frequency determined by the selected transmitter and receiver oscillator.

With the SEARCH-OFF switch in the SEARCH position, no voltage is applied through the frequency selector switch to either receiver crystal-switching diode, permitting the Search-Lock Monitor circuit to operate. The SLM then provides two-channel sequential monitoring by alternately switching +10 Volts between the receiver crystal-switching diodes at a rate of approximately eight times per second.

When a signal is received on either channel, the SLM will "lock" on that channel for the duration of the signal.

#### Dimmer Control (R705)

The dimmer control is a rheostat in series with the power-on and frequency indicator lights. Turning the control adjusts the amount of light that is given off by the lamps.

#### CHANNEL GUARD-OFF Switch (S703)

Placing this switch in the OFF position disables the receiver Channel Guard so that the receiver operates on noise squelch only.

### VEHICLE IGNITION SWITCH CONNECTIONS

The Control Unit may be connected for three different modes of operation, depending on the way the three ignition switch cables are connected in the vehicle system. The black ignition switch cable provides the receiver ground connection. The yellow fused lead provides the receive hot connections, and the red fused lead provides the +12 Volts for the power regulator. The three types of operation are:

1. Ignition Switch Standby - For this type of operation, the red fused lead (power regulator voltage) is connected to the AC-CESSORY or ON terminal of the ignition switch. The yellow fused lead (receiver hot) is connected to the hot side of the ignition switch, and the black lead connects to vehicle ground.

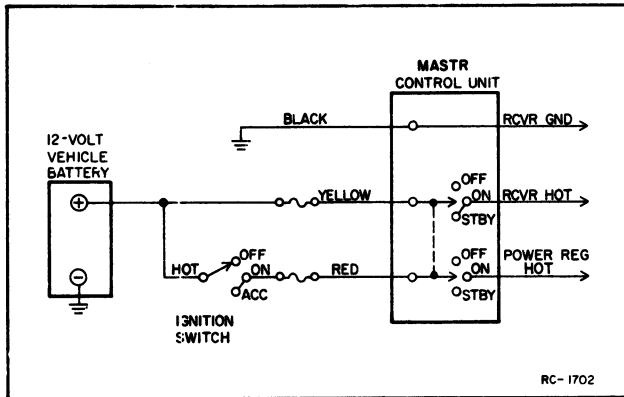


Figure 1 — 12-VDC Connections for Ignition Switch Standby

With the ignition switch OFF, the receiver automatically reverts to STBY, ready to receive messages. Turning the ignition switch to the ON or ACCESSORY position turns on the green pilot light and supplies power regulator voltage. Turning the OFF-ON-STBY switch to OFF removes all power to the Two-Way Radio.

2. **Ignition Switch Control** - For ignition switch control, the yellow and red fused leads are connected to the ACCESSORY or ON terminal of the ignition switch. The transmitter and receiver will operate only when the ignition switch is in the ACCESSORY or ON position. Turning the ignition switch OFF removes all power to the radio.

3. **Ignition Switch Bypass** - For ignition switch bypass, the yellow and red fused leads connect to the "hot" side of the ignition switch or the vehicle fuse block assembly. Both the transmitter and receiver operate independently of the ignition switch and can be turned on the OFF only by the OFF-ON-STBY switch on the MASTR Control Unit.

## MAINTENANCE

### DISASSEMBLY

In Trunk-Mount installations, access to the inside of the Control Unit is obtained by removing the two Phillips-head screws in the back of the unit and pulling the back panel away from the housing.

In Front-Mount installations, remove the two Phillips-head screws holding the front casting to the frame and move the casting away from the frame. Next, remove the two screws securing the control cable plug to the inside of the front casting. Then remove the two flat-head screws holding the Control Unit to the front casting.

### PILOT LIGHT REPLACEMENT

The pilot lights can be easily replaced without disassembling the Control Unit. First, unscrew the colored lens. Then wrap a small piece of masking tape around the bulb, to give the fingers a firm grip, and unscrew the bulb.

### REINSTALLATION

The MASTR Imperial mobile combination operates in 12-Volt, negative ground vehicle systems only! If the radio is ever moved to a different vehicle, always check the battery polarity and voltage of the new system before using the radio.

### CAUTION

Do not install the MASTR Imperial in a vehicle system using a circuit breaker. The radio must be operated in a system protected by a 15-amp quick blow fuse (similar to GE Fuse Assembly 19B216021-G4 and fuse 1R11-P4).

If it becomes necessary to move the Two-Way Radio and Control Unit to another vehicle, the 25-pin control cable plug may need to be disassembled. Refer to Figure 2 for disassembly of the plug.

MOBILE RADIO DEPARTMENT  
GENERAL ELECTRIC COMPANY • LYNCHBURG, VIRGINIA 24502

GENERAL  ELECTRIC

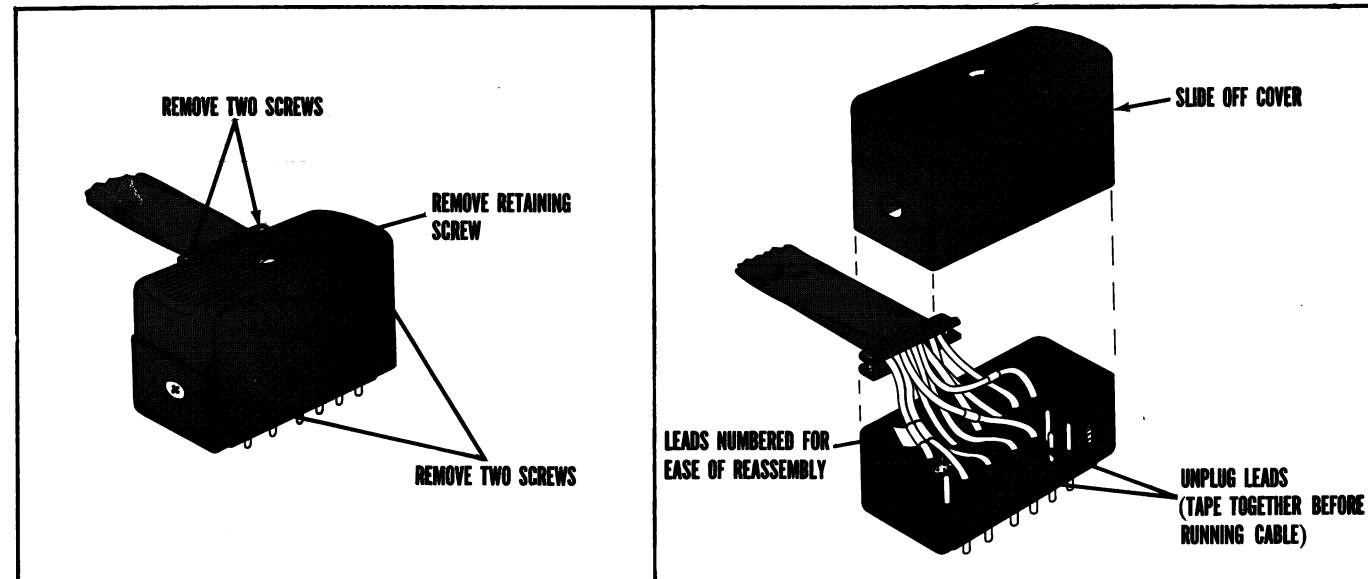
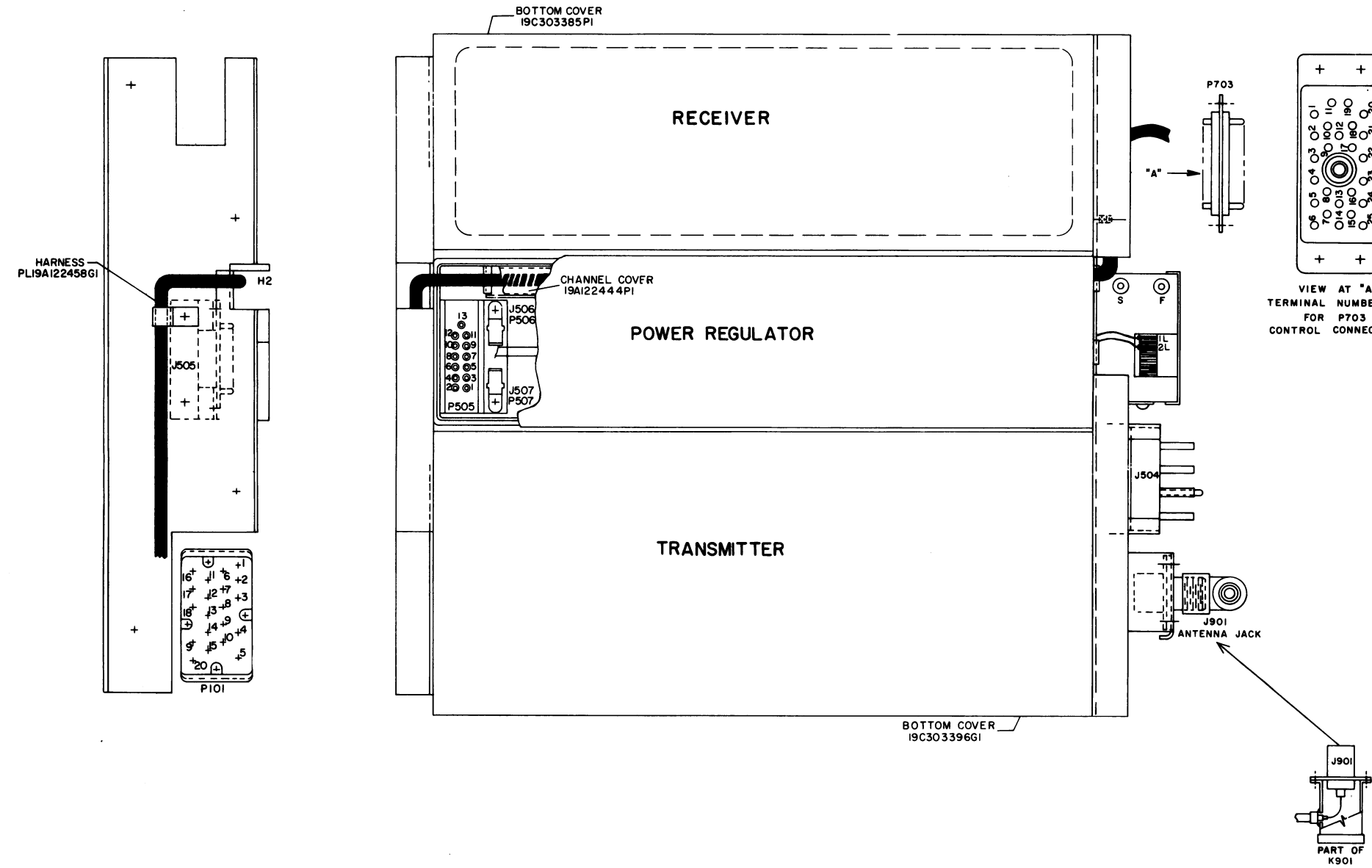


Figure 2 - Disassembly of Control Cable Plug

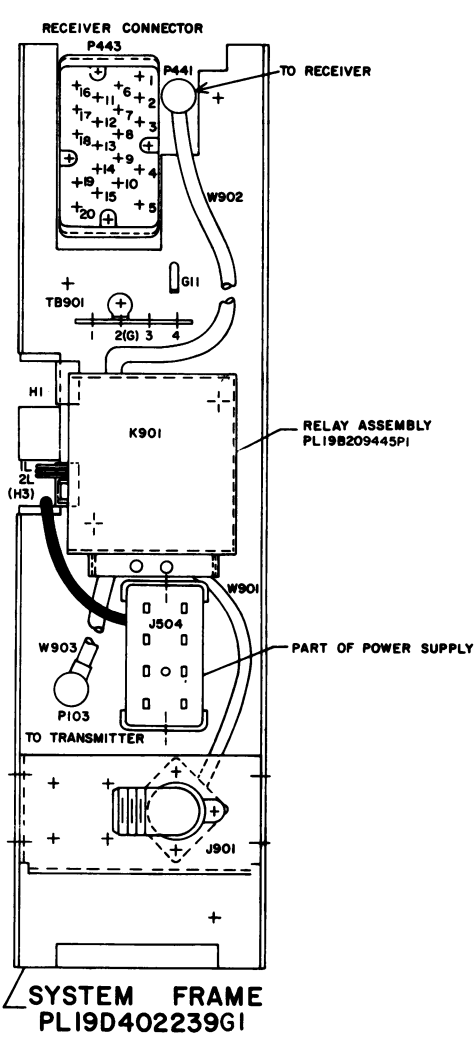
## NOTE

The plug is assembled so that the cable comes out of the top of the plug when connected to the Control Unit. To have the cable come out of the bottom of the plug, remove the remaining two screws and rotate the metal frame 180 degrees.

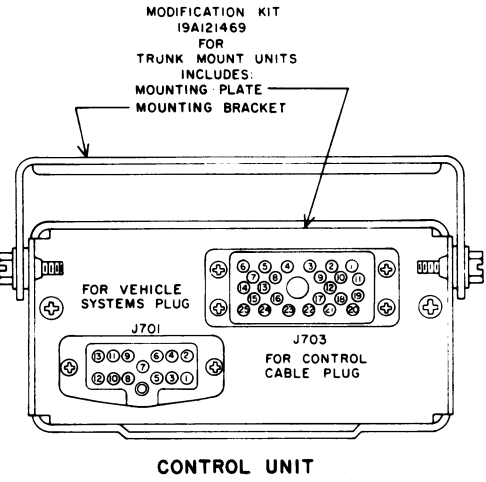
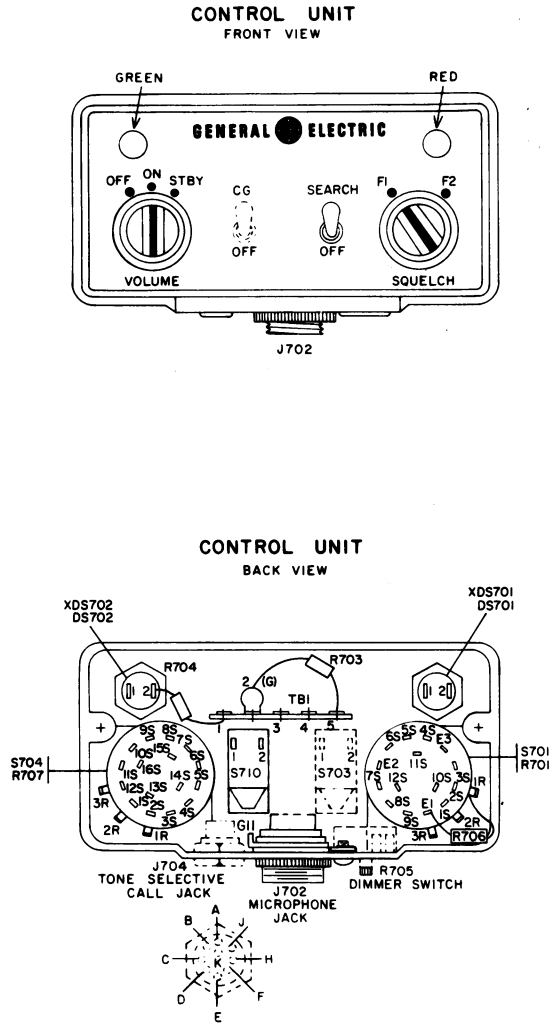
OUTLINE DIAGRAM  
MASTER IMPERIAL CONTROL UNIT  
MODELS 4EC59A128-131



(19D416968, Rev. 1)



CONTROL UNIT

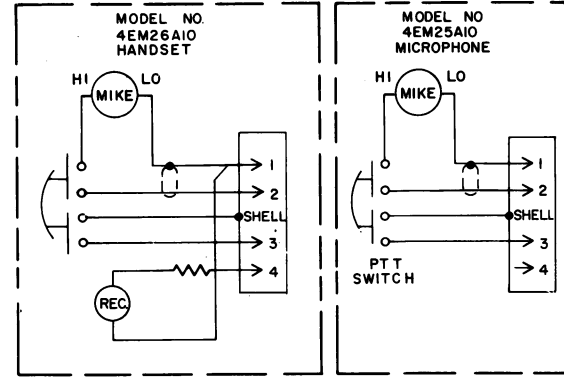


SYMBOL	FUNCTION
P701	VOLUME CONTROL
P707	SQUELCH CONTROL
S701	OFF ON-STBY CONTROL
S710	SEARCH OFF
S703	CHANNEL SELECT OFF
S704	FREQUENCY SELECTOR

(19C317730, Rev. 0)

MODEL NUMBER	REV. LETTER	NO. OF FREQ.	BASIC	CHANNEL GUARD MONITOR SWITCH	TOPE OPTION JACK	TOPE OPTION & CHANNEL GUARD
4EC59A84	A	2	X			
4EC59A86	B	2			X	
4EC59A88	A	2				X
4EC59A90	B	2		X		
4EC59A128	A	2	X			
4EC59A129	B	2			X	
4EC59A130	A	2		X		
4EC59A131	A	2				X

\*\*TERMINALS 4 & 11 ARE USED ON 12 VOLT SYSTEMS FOR CONTROL OF 10-WATT SPEAKER.



- ▲ DIMMER CONTROL OPTION  
ADD DOTTED CONNECTIONS & OMIT WIRE FROM TBI-5 TO XDS701-1
- TONE SELECTIVE CALLING OPTIONAL
- SPEAKER MUTE  
OMIT DA WIRE WHEN J704 IS USED.
- ☒ CHANNEL GUARD SWITCH  
OMIT IN MODEL 4EC59A84

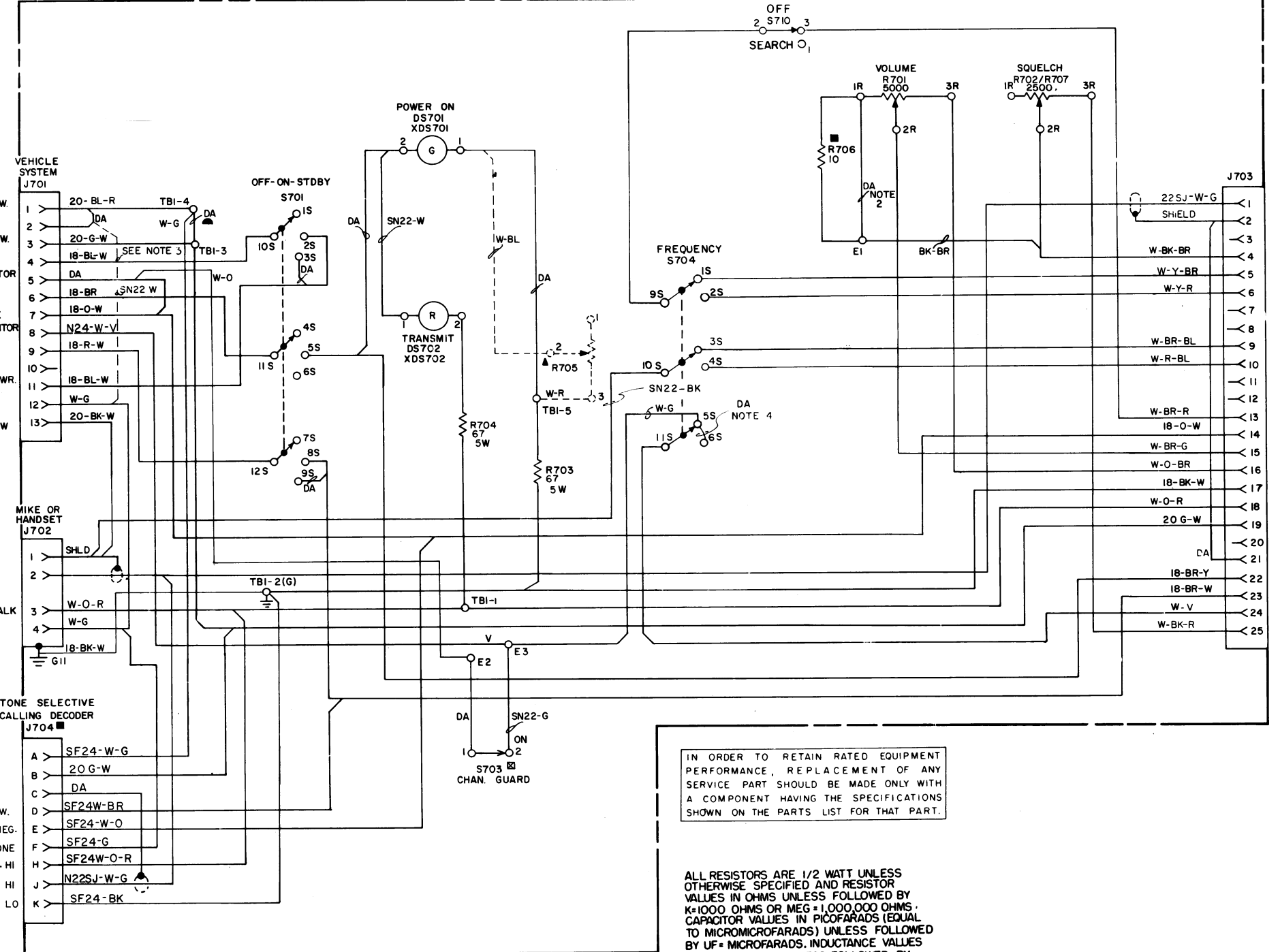
- NOTES:
1. ALL WIRES N24 UNLESS OTHERWISE SPECIFIED.
  2. OMIT DA WIRE WHEN R706 IS USED.
  3. ADD W WIRE WHEN PL19820497061 HOOKSWITCH IS USED.
  4. FOR CHANNEL GUARD ON FI ONLY REMOVE DA WIRE.

- 2 6/28 V.D.C. CHAN. GUARD MONITOR HOOK SW. +13.6V (ON)
- SYSTEM NEGATIVE CHAN. GUARD MONITOR HOOK SW. +13.6V (STANDBY)
- 10 W SPKR. \*\*SW. 6/28 V.D.C. PWR. RELAY/10 W. SPKR. EARPHONE MUTE VOICE COIL LOW

- V.C. HI
- A.F. HI
- A.F. LO
- +13.6V SW.
- SYSTEM NEG.
- EARPHONE
- PTT-HI
- MIC HI
- PTT LO

5. IN ENCODE ONLY APPLICATIONS, DA JUMPER FROM TBI-3 TO TBI-4 MUST BE PRESENT.

## CONTROL UNIT

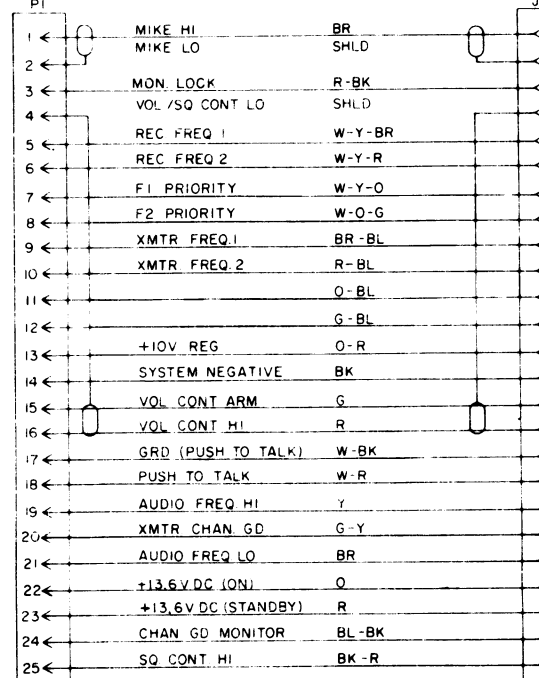


IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

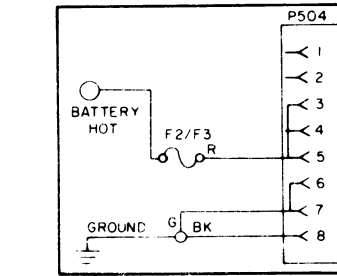
ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OR MEG=1,000,000 OHMS. CAPACITOR VALUES IN MICROFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF= MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH= MILLIHENRYS OR H=HENRYS.

(19D413694, Rev. 9)

## CONTROL CABLE TRUNK MOUNT 19C303626-G384 (MULT. FREQUENCY)

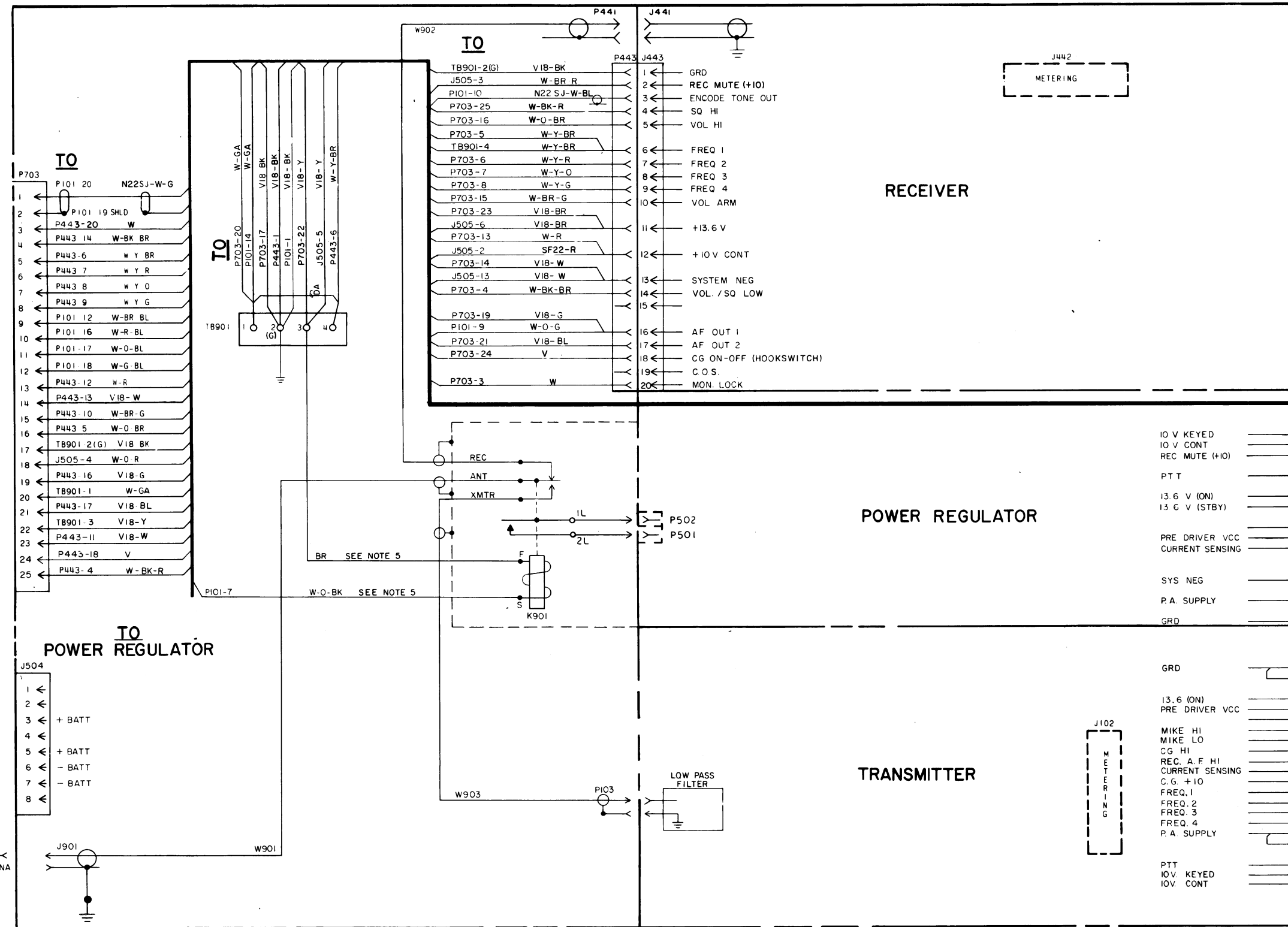


## 12-V NEGATIVE GROUND SYSTEM



(RC-2362)

## SYSTEM FRAME AND HARNESS



ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OR MEG=1,000,000 OHMS. CAPACITOR VALUES IN MICROFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF= MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH= MILLIHENRYS OR H=HENRYS.

IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

(19D416412, Rev. 3)

## SCHEMATIC & INTERCONNECTION DIAGRAM

MASTER IMPERIAL CONTROL UNIT  
MODELS 4EC59A128-131

LBI-4401

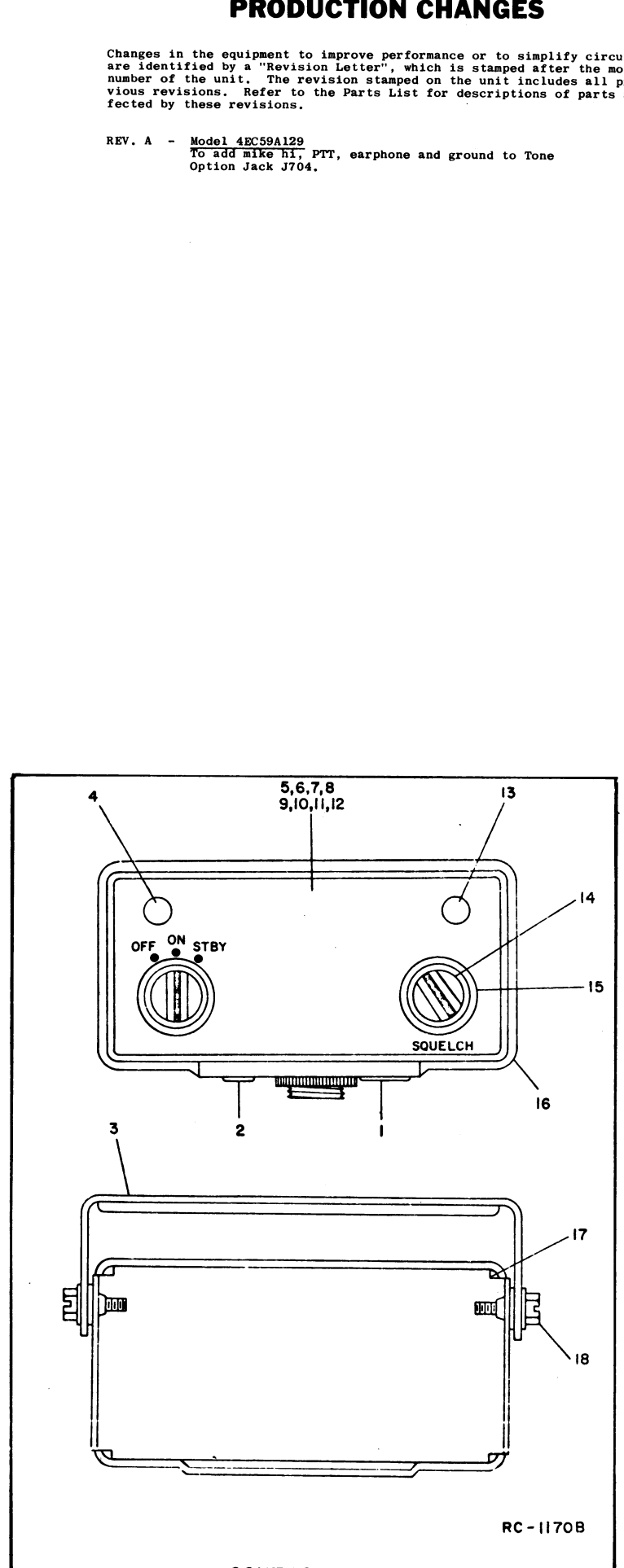
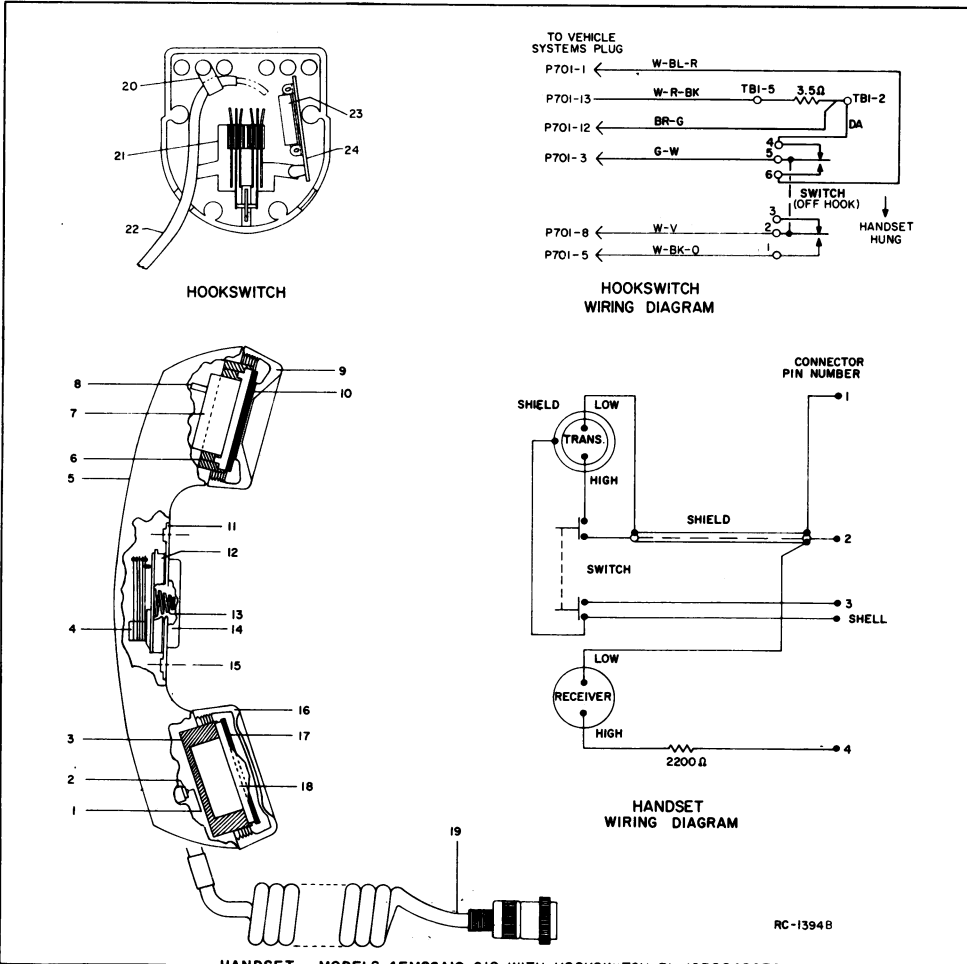
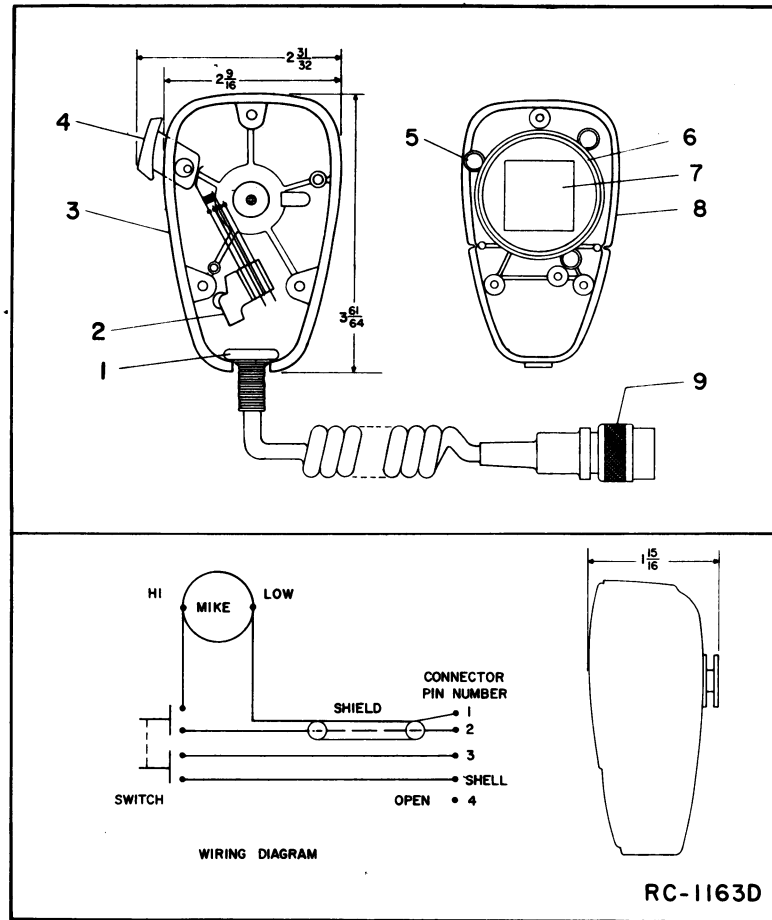
SYMBOL	GE PART NO.	DESCRIPTION
		CONTROL UNIT 19D413054G20
		----- INDICATING DEVICES -----
DS701 and DS702	19B201122P1	Light, indicator: miniature, 6 v; sim to GE Type 1768.
		----- JACKS AND RECEPTACLES -----
J701	19C303576P1	Socket, phen: 13 contacts rated at 5 amps max.
J702		Receptacle. Includes:
	19A116061P2	Receptacle: 4 contacts; sim to Amphenol 91-PW4F-1000.
	19A116061P4	Lockwasher, internal tooth.
	19A116061P5	Nut, knurled: No. 13/16-27N-2.
	19A116049P1	Solderless terminal.
J703	19D402408P1	Connector, phen: 25 contacts rated at 5 amps max.
J704	19B21627801	Jack assembly: 9 female contacts rated at 5 amps at 900 VMS; sim to Winchester M9S-LRN.
		----- RESISTORS -----
R701		(Part of S701).
R703 and R704	5493035P19	Wirewound: 67 ohms ±5%, 5 w; sim to Hamilton Hall Type HR.
R706	3R77P100K	Composition: 10 ohms ±10%, 1/2 w.
R707		(Part of S704).
		----- SWITCHES -----
S701	19C307089P19	Switch/Resistor: includes Switch, rotary, 3 poles, 3 positions, momentary shorting contacts, 250 ma at 500 VMS; Resistor (R701), variable, 5000 ohms ±20%, 1/2 w max; sim to Mallory LC5K-3133.
S703	5491899P5	Toggle: SPST, 3 amps at 250 VAC or 250 VDC; sim to Cutler-Hammer 8280K15.
S704	19C307089P22	Switch/Resistor: includes Switch, rotary, 4 poles, 2 positions, momentary shorting contacts, 250 ma at 500 VMS; Resistor (R707), variable, 2500 ohms ±10%, 1 w max; sim to Mallory Type LC.
S710	5491899P4	Toggle: DPST, 6 amps at 125 VAC/VDC; sim to Cutler-Hammer 8373K8.
		----- TERMINAL BOARDS -----
TB1	7775500P9	Phen: 5 terminals.
		----- SOCKETS -----
XD8701 and XD8702	19B201122P2	Lamp, miniature: sim to Drake Series 121.
		MECHANICAL PARTS
		CONTROL UNIT MODELS 48C59A128-131 (SEE RC-1170)
1	N529P19C13	Plug button: approx 21/32 inches dia.
2	N529P5C13	Plug button: approx 13/32 inches dia.
3	19A121521G1	Mounting bracket.
4	19B201122P3	Lens cap: green translucent nylon.
5	NP276152	Nameplate. (Used in Models 48C59A128 and A129).
6	NP276149	Nameplate. (Used in Models 48C59A130 and A131).

SYMBOL	GE PART NO.	DESCRIPTION
7		(Not Used).
8		(Not Used).
9		(Not Used).
10		(Not Used).
11		(Not Used).
12		(Not Used).
13	19B201122P4	Lens cap: red translucent nylon.
14	19B204443G3	Knob: brown.
15	19C303413P1	Knob: VOLUME/SQUELCH.
16	19D413010P3	Housing: brown.
17	19B204522P1	Mounting plate.
18	19A115495P1	Screw, hexhead: No. 1/4-20 x 5/8.
	19A116773P108	Tap screw, Phillips POZIDRIV®: No. 7-19 x 3/8. (Secures backplate to housing).
		ASSOCIATED ASSEMBLIES
	19A121469G1	Control unit modification kit (trunk mount).
	19D402239G1	12 volt vehicle frame.
	19A122444P1	Cover, wire channel (on systems frame).
	19C303452G1	Front casting (Front mount).
	19C303452G2	Front casting (Trunk mount).
	4034260P3	Screw: 10-32 x 1-1/8 (Secures Front casting).
	5491682P2	Lock: Yale and Towne. (Part of Front casting).
	5491682P7	Cam. (Used with lock).
		DIMMER CONTROL MODIFICATION KIT 19A121293G1
		----- RESISTORS -----
R705	19B209114P1	Variable, wirewound: 75 ohms ±20%, 3 w; sim to CTS Series 112.
		POWER CABLE ASSEMBLY 19C303601G1 (12 VOLT FRONT MOUNT) 19C303601G2 (12 VOLT TRUNK MOUNT)
	19B209189P1	Connector, phen: 8 contacts rate at 15 amps at 1100 VMS; sim to Deuchaine and Sons S-5401-76.
	19D402438P1	Cap, connector.
	19A121444P2	Connector retaining screw.
	19A115313P1	Cable: 3 conductor, approx 9 feet long. (Used in 19C303601G1).
	19A115314P1	Cable: 3 conductor, approx 18 feet long. (Used in 19C303601G2).
		----- PLUGS -----
P1	19C303626G5	Plug, male: includes connector 19D402408P3, cap 19C303280P2 and connector retaining screw 19A121444P2.
		----- JACKS AND RECEPTACLES -----
J1	19C303626G6	Plug, female: includes connector 19D402408P1, cap 19C303280P1 and connector retaining screw 19A121444P1.
		----- MISCELLANEOUS -----
	19D402408P1	Connector, female phen: 25 contacts rated at 5 amps max.
	19D402408P3	Connector, male phen: 25 contacts rated at 5 amps max.

SYMBOL	GE PART NO.	DESCRIPTION
	19C303290P1	Cap, connector.
	19C303290P2	Cap, connector.
	7139880P11	Cable: 23 conductors. (When ordering specify length). (Used in 19C303626G1 and G2).
	7139880P8	Cable: 13 conductors. (When ordering specify length). (Used in 19C303626G3 and G4).
		VEHICLE SYSTEM CABLE KIT 19A121454G1 (12 VOLT VEHICLES)
	19A121429P1	Pin: 1/2 inch long.
	19A121441G1	Plug: 13 contacts.
	19C303574P1	Cover: approx 1-13/16 x 1-x 1/32 inches.
		FUSED LEAD ASSEMBLY 19A121314G1 (19A121454G1)
	1R16P8	Fuse, cartridge, quick blowing: 5 amps at 250 v; sim to Littelfuse 312005 or Bussmann MTH-5.
	7124109P3	Fuseholder: sim to Bussmann Type HDJ-B.
	7112178P7	Cable: approx 8-3/4 feet long.
		INTERCONNECTION HARNESS ASSEMBLY 19A122458G1
		----- JACKS AND RECEPTACLES -----
J505	19B204409G1	Plug, male: 13 pin contacts.
		----- PLUGS -----
P101	19C303506P1	Connector, phen: 20 contacts rated at 5 amps max at 600 VDC.
P443	19C303506P1	Connector, phen: 20 contacts rated at 5 amps max at 600 VDC.
P703	19D402408P2	Connector, phen: 25 contacts rated at 5 amps max.
		----- TERMINAL BOARDS -----
TB901	7775500P11	Phen: 5 terminals.
	19A122444P1	Channel Cover.
		ANTENNA RELAY ASSEMBLY 19B209445P1 Includes J901, K901, P103, P441, W901-W903.
		12 VOLT FUSEHOLDER 19B216021G4 (Fuses must be ordered separately)
		----- FUSES -----
IR11P4		Quick blowing: 15 amps, 250 v; sim to Bussman NON15. (transmitters).
		132-512 MHz ANTENNA 19B209568P1
		Whip assembly. 068110-001.
		Whip nut assembly. 068047-001.
		Base nut assembly. 068048-001.
		"O" Ring (LARGE). 007059-122.
		Stud assembly. 068046-001.
		RG58/U Cable, 15 feet. 068115-001.

SYMBOL	GE PART NO.	DESCRIPTION
		25 - 50 MHz ANTENNA
	7491074P1	Antenna: includes stainless steel rod approx 96-1/2 inches long; ball tip; lockwasher; No. 10-32 hex socket set screw; sim to Antenna Specialists ASPA38E.
	7102930P3	Adapter, antenna: approx 2-5/16 inches long. (Used with GE Dwg 7491074P1).
	4KY9A1	Loading coil: 25-33 MHz; sim to Antenna Specialists ASPA87.
	19A121577G1	Antenna hook kit.
	7134724P1	Antenna hook.
	19C307172P1	Antenna Package: Includes base and ball assembly, adapter spring assembly, cable assembly, horseshoe plate, and rubber gasket.
		Base and ball assembly. Newtronics 5495.
		Adapter spring assembly. Newtronics 3327.
		Cable assembly. Newtronics 183-RAO.
		Horseshoe plate. Newtronics 3323-3.
		Rubber gasket. Newtronics 3320.
		HANDSET MODEL 4EM26A10 MODEL 4EM26C10 (SEE RC-1394)
1		Self tap screw, blind head: No. 4 x 5/16. Shure Brothers 30C640C.
2		Cable clamp. Shure Brothers 53A532.
3		Shield. Shure Brothers RP19.
4		Switch. Shure Brothers RP81.
5		Case. Shure Brothers RP49. (Used in 4EM26A10).
		Case. Shure Brothers 21RP899F. (Used in 4EM26C10).
6		Adapter. Shure Brothers 65A230.
7		Magnetic controlled cartridge. Shure Brothers RP41.
8	3R77P222K	Resistor, composition: 2200 ohms ±10%, 1/2 w.
9		Receiver cap. (Part of item 5).
10		Washer. Shure Brothers 34A321.
11		Escutcheon. Shure Brothers 53A536A.
12		Actuator. Shure Brothers 53A556.
13		Spring. Shure Brothers 44A140.
14		Plunger bar. Shure Brothers RP82.
15		Flat head screw, socket cap: No. 4-40 x 1/4. Shure Brothers 30C557B.
16		Transmitter cap. Shure Brothers 65A197A. (Part of item 5).
17		Washer. Shure Brothers 34A309.
18		Magnetic controlled cartridge. Shure Brothers RP13.
19		Cable and plug. Shure Brothers RP48. (Used in 4EM26A10).
		Cable and plug. Shure Brothers 21RP738F. (Used in 4EM26C10).
		HOOKSWITCH ASSEMBLY 19B204867G1 (SEE RC-1394)
20	4029851P4	Cable clamp: sim to WEC Kesser 3/16-4.
21	19A121612P1	Holder and switch: thermoplastic case, contact rating 1 amp at 125 v.
22	19A121581G1	Cable: approx 8-1/2 feet long, includes five 19A121429P1 pins.

SYMBOL	GE PART NO.	DESCRIPTION
23	5483035P10	Resistor, wirewound, ceramic: 3.5 ohms ±5%, 5 w; sim to Hamilton Hall Type HR.
24	7775500P55	Terminal board, phen: 5 terminals.
		MILITARY MICROPHONE MODEL 4EM25M10 19B209102P6 (SEE RC-1163)
1		Cable clamp. Shure Brothers 53A532.
2		Switch. Shure Brothers RP26.
3		Case (back) and mounting button: plastic. Shure Brothers RP100.
4		Switch button: red plastic. Shure Brothers RP25.
5		Spring. Shure Brothers RP16.
6		Shield. Shure Brothers RP23.
7		Magnetic controlled cartridge. Shure Brothers RP13.
8		Case (front): plastic. Shure Brothers RP100.
9		Cable and plug: approx 6 feet long. Shure Brothers RP14.
		5 WATT SPEAKER 4E220A12 19D402449G19
LS2	19A116910P1	Permanent magnet: 5 inch, 3.2 ohms ±15% imp, 5 w max operating; sim to Pioneer 002009.
W3	19A121548G1	Cable assembly: approx 48 inches long, includes (2) 19A121429P1 pins.
		MECHANICAL PARTS
	19D416396P1	Speaker housing.
	19C320016P2	Mounting support.
	19A116985P1	Screw, hex head-slotted: double lead thread, with internal tooth washer, No. 13-16 x 3/4. (Secures housing to mounting bracket).
	19B219692G1	Grille.



## PRODUCTION CHANGES

Changes in the equipment to improve performance or to simplify circuits are identified by a "Revision Letter", which is stamped after the model number of the unit. The revision stamped on the unit includes all previous revisions. Refer to the Parts List for descriptions of parts affected by these revisions.

REV. A - Model 48C59A129  
To add Mike HI, PTT, earphone and ground to Tone Option Jack J704.